



May 24, 2017

Tom Moe USS Corporation P.O. Box 417 8771 Park Ridge Dr Mountain Iron, MN 55768

RE: Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

Dear Tom Moe:

Enclosed are the analytical results for sample(s) received by the laboratory on May 17, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Melisa M Woods

Massia Wirds

melisa.woods@pacelabs.com

(218)742-1042 Project Manager

Enclosures

cc: Terri Sabetti, NTS







CERTIFICATIONS

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

Virginia Minnesota Certification ID's

315 Chestnut Street, Virginia, MN 55792

Montana Certificate #CERT0103

California Certification #2973

California Certification #2973

Alaska Certification UST-107 Alaska Certification UST-107

Alaska Certification #MN01084

Arizona Department of Health Certification #AZ0785

Minnesota Dept of Health Certification #: 027-137-445

North Dakota Certification: # R-203

Wisconsin DNR Certification #: 998027470

WA Department of Ecology Lab ID# C1007

Nevada DNR #MN010842015-1

Oklahoma Department of Environmental Quality

California Certification #2973

Duluth Minnesota Cerification ID's

4730 Oneota St., Duluth, MN 55807

Minnesota Dept of Health Certification #: 027-137-152

Wisconsin DNR Certification #: 999446800

North Dakota Certification #: R-105

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SAMPLE SUMMARY

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

Lab ID	Sample ID	Matrix	Date Collected	Date Received
1287689001	SD 001 (Seep 020)	Water	05/17/17 10:50	05/17/17 13:55

Virginia, MN 55792 (218) 742-1042



SAMPLE ANALYTE COUNT

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory	
1287689001	SD 001 (Seep 020)	EPA 1664A TPH (1999)	DES	1	PASI-DUL	
		USGS I-3765	JJH	1	PASI-V	



ANALYTICAL RESULTS

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

Date: 05/24/2017 11:33 AM

Sample: SD 001 (Seep 020)	Lab ID:	1287689001	Collected: 05/17/17 10:50			Received: 05/17/17 13:55 Matrix: Water			
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
1664 SGT-HEM, TPH	Analytical	Method: EPA	1664A TPH	(1999)					
Total Petroleum Hydrocarbons	ND	mg/L	2.9	0.97	1		05/23/17 12:02		
USGS I-3765 TSS	Analytical	Method: USG	S I-3765						
Total Suspended Solids	4.0	mg/L	1.0	1.0	1		05/19/17 10:11		



QUALITY CONTROL DATA

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

QC Batch: 114453

EPA 1664A TPH (1999)

Analysis Method:

EPA 1664A TPH (1999)

Analysis Description:

1664 SGT-HEM, TPH

Associated Lab Samples: 1287689001

METHOD BLANK: 451443

Total Petroleum Hydrocarbons

Matrix: Water

ND

Associated Lab Samples:

QC Batch Method:

1287689001

Blank

Reporting

Parameter Units Result

Limit

3.0

MDL

Analyzed

05/23/17 10:11

Qualifiers

LABORATORY CONTROL SAMPLE:

Parameter

451444

Spike Conc.

LCS Result

LCS % Rec % Rec Limits

Qualifiers

Total Petroleum Hydrocarbons

Units mg/L

mg/L

20

16.2

81

1.0

MATRIX SPIKE SAMPLE:

Date: 05/24/2017 11:33 AM

451445

Parameter

Units

1287777003 Result

Spike Conc.

MS Result

MS % Rec

64-132

% Rec Limits

Qualifiers

Total Petroleum Hydrocarbons

mg/L

<1.1

20

15.9

77

64-132

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



QUALITY CONTROL DATA

USGS I-3765

USGS I-3765 Total Suspended Solids

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

QC Batch: 114212

QC Batch Method: USGS I-3765

Associated Lab Samples: 1287689001

METHOD BLANK: 450589 Matrix: Water

Associated Lab Samples: 1287689001

ParameterUnitsBlank Reporting ResultReporting LimitMDLAnalyzedQualifiersTotal Suspended Solidsmg/LND1.01.005/19/17 10:10

Analysis Method:

Analysis Description:

LABORATORY CONTROL SAMPLE: 450590

Spike LCS LCS % Rec Parameter Units Conc. Result % Rec Limits Qualifiers **Total Suspended Solids** mg/L 239 230 96 80-120

SAMPLE DUPLICATE: 450591

1287641001 Dup Max **RPD RPD** Parameter Units Result Result Qualifiers 178 3 10 Total Suspended Solids 172 mg/L

SAMPLE DUPLICATE: 450592

Date: 05/24/2017 11:33 AM

1287613001 Dup Max RPD RPD Parameter Units Result Result Qualifiers 277 Total Suspended Solids mg/L 257 8 10

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

(218) 742-1042



QUALIFIERS

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

LABORATORIES

PASI-DUL Pace Analytical Services - Duluth
PASI-V Pace Analytical Services - Virginia

BATCH QUALIFIERS

Batch: 114453

Date: 05/24/2017 11:33 AM

[BE] Batch extracted by solid phase extraction (SPE).

(218) 742-1042



QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: USS MinnTac NPDES-TB Wk3

Pace Project No.: 1287689

Date: 05/24/2017 11:33 AM

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
1287689001	SD 001 (Seep 020)	EPA 1664A TPH (1999)	114453		
1287689001	SD 001 (Seep 020)	USGS I-3765	114212		

Requested Due Date: 10 Vt. Iron, MN 55768 Address: Required Client Information: 12 11 ITEM # company: 9 8 6 2 SD 001 (Seep 020) P.O. Box 417 USS Corporation Sample Ids must be unique One Character per box. (A-Z, 0-9 / , -) SAMPLE ID ADDITIONAL COMMENTS Fax: MATRIX
Drinking Water
Water
Waste Water
Product
Soil/Soild
Oil
Whipe
Air
Other Report To: Tom Moe
Copy To: Project #: Purchase Order #: Required Project Information: Project Name: RELINQUISHED BY / AFFILIATION and restate ₹ MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP) NPDES-TB Wk3 52:01/c2+545:01/c2tg START SAMPLER NAME AND SIGNATURE TIME COLLECTED SIGNATURE of SAMPLER: PRINT Name of SAMPLER: The Chain-of-Custody is a LEGAL DOCUMENT. All relevant CHAIN-OF-CUSTODY / Analytical Req END TIME 5-11-13:55 DATE SAMPLE TEMP AT COLLECTION # OF CONTAINERS Invoice Information: Pace Profile #: Pace Project Manager: Pace Quote: Address: Company Name: HIME Unpreserved H2SO4 ay most ic ниоз Preservatives HCI NaOH ACCEPTED BY / AFFILIATION Na2S2O3 heather.zika@pacelabs.com Methanol Other **Analyses Test** Y/N TSS DATE Signed: TRPH 1664 W0#:1287689 PM: MMW CLIENT: USS CORP 51117 DATE 1355 Due Date: 06/01/17 TIME TEMP in C 2 State I Location Residual Chlorine (Y/N) Received on SAMPLE CONDITIONS 3 (Y/N) Custody Sealed

Cooler

(Y/N) Samples Intact (Y/N)

7

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Document Name:

Sample Condition Upon Receipt Form

Document No.:

Page 1 of 1

Issuing Authority:

F-VM-C-001-Rev.10

Pace Virginia, Minnesota Quality Office

Document Revised: 15Mar2016

Sample Condition Client Name: Upon Receipt			Project	#: W0#:1287689
USS Corp			-	DM
Courier: Fed Ex UPS	USPS		Client	PM: MMW Due Date: 06/01/17 CLIENT: USS CORP
Commercial Pace Tracking Number:	Othe	r:		SEILMI. USS CORP
Custody Seal on Cooler/Box Present? Yes	No	Seals	Intact?	Yes No Optional: Proj. Due Date: Proj. Name:
Packing Material: Bubble Wrap Bubble B	ags 🗾	Vone	Other:_	Temp Blank? Yes No
hermometer Used: 140792808	Type of	fice:	Wet [Blue None Samples on ice, cooling process has beg
Cooler Temp Read °C: \(\begin{align*}\ll \ll \\ \ll \\ \\ \\ \end{align*}\) Cooler Temp emp should be above freezing to 6°C Correction Factors (a)	Corrected ctor:	°C: 1 O 13	Date an	
Chain of Custody Present?	✓Yes	□No	□N/A	1.
Chain of Custody Filled Out?	Yes	□No	□N/A	2.
Chain of Custody Relinquished?	ZYes	□No	□N/A	3.
Sampler Name and Signature on COC?	Yes	□No	□N/A	4.
Samples Arrived within Hold Time?	✓Yes	□No	□N/A	5. If Fecal:
Short Hold Time Analysis (<72 hr)?	Yes	□N0	□N/A	6.
Rush Turn Around Time Requested?	□Yes	No	□N/A	7.
Sufficient Volume?	Yes	□No	□N/A	8.
Correct Containers Used?	Ves	□No	□N/A	9.
-Pace Containers Used?	Yes	□No	□N/A	
Containers Intact?	Yes	□No	□N/A	10.
Filtered Volume Received for Dissolved Tests?	□Yes	No	N/A	11. Note if sediment is visible in the dissolved containers.
Sample Labels Match COC?	✓ Yes	□No	□N/A	12.
-Includes Date/Time/ID/Analysis Matrix:	S			
All containers needing acid/base preservation will be checked and documented in the pH logbook.	□Yes	□No	DN/A	See pH log for results and additional preservation documentation
Headspace in Methyl Mercury Container	□Yes	□No	☑N/A	13.
Headspace in VOA Vials (>6mm)?	Yes	□No	N/A	14.
Trip Blank Present?	Yes	No	ZN/A	15.
Trip Blank Custody Seals Present? Pace Trip Blank Lot # (if purchased):	· Yes	□No	ZN/A	
Person Contacted: Comments/Resolution:			D	Field Data Required? Yes No
ECAL WAIVER ON FILE Y N		TFMI	PERATUR	E WAIVER ON FILE Y N
oject Manager Review: Whenever there is a discrepancy affecting North Carolina , incorrect preservative, out of temp, incorrect containers)	<u> </u>	Sint	()	Date: 5/17/17 s form will be sent to the North Carolina DEHNR Certification Office (i.e. ou

Intra-Regional Chain of Custody



Workorder: 1287689 Workorder Name: USS MinnTac NPDES-TB Wk3 Owner Received Date: 5/17/2017 Due Date: 6/1/2017

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Pace Analytical Virginia	Pace Analytical Duluth
315 Chestnut Street	4730 Oneota Street
Virginia, MN 55792	Duluth, MN 55807
Phone (218)742-1042	Phone (218) 727-6380
Report To: Melisa M Woods	Preserved Containers
	: :
Item Sample ID	Sample Collect Type Date/Time Lab ID Matrix
1 SD 001 (Seep 020)	PS 5/17/2017 10:50 1287689001 Water 2
2	
ω	
4	
5	
•	
Transfers Released By	Date/Time Received By
1 (arcop	J 2011 6/18/15
2	MAH wang 1887/21/18/5
3	0 0
4	
Cooler Temperature on Receipt	Receipt 7.5 °C Custody Seal (Ý) or N

^{***}In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

Pace Analytical

hold, incorrect preservative, out of temp, incorrect containers)

Document Name: Sample Condition Upon Receipt Form

Document No.: F-DUL-C-001-rev.04 Document Revised: 17Apr2017 Page 1 of 1

Issuing Authority: Pace Duluth Minnesota Quality Office

ample Condition Client N	ame:		F	Project #:					
Upon Receipt Pac	e VM								
Courier: Fed Ex	UPS	USPS	Cli	ent					
Comm	ercial Pace	Other:_							
Tracking Number:									
ustody Seal on Cooler/Box Pre	sent? Yes No	Seals	Intact?	Yes	□ No	Optional: P	roj. Due Date:	Proj. Name:	
cking Material:	Wrap Subble Bag	gs 🔲 N	one [Other:_			Temp	Blank? Yes	No
ermometer Used: 🛕 IR-1	161014660	Type of Id	ce: \(\sum_{\lambda} \)	Vet _	Blue	None	Samples on ice	e, cooling process ha	s begun
Cooler Temp Read °C: 2.	Cooler Temp Co	rrected °C	: 2.5			Biological	Tissue Frozen?	Yes No	NA.
mp should be above freezing	to 6°C Correction Facto	r: TRUE	AND DESCRIPTION OF THE	Date and	Initia	ls of Person Exami	ning Contents:	KH 5/18/17	
emperature is ≤0°C, is there e			□No	NA					
					Comi	ments:			
Chain of Custody Present?		Yes	No	□N/A	1.				
Chain of Custody Filled Out?		Yes	No	□N/A	2.				
Chain of Custody Relinquished	?	Yes	No	□N/A	3.			i,	
Sampler Name and Signature o	in COC?	Yes	No	N/A	4.				
Samples Arrived within Hold Ti	me?	Yes	No	□N/A	5.	If Fecal: <8 hours	>8, <24 hour	s >24 hours	
Short Hold Time Analysis (<72	hr)?	Yes	No	□N/A	6.				
Rush Turn Around Time Requ	ested?	Yes	No	□N/A	7.				
Sufficient Volume?		Yes	No	□N/A	8.				
Correct Containers Used?		Yes	No	□N/A	9.				-
-Pace Containers Used?		Yes	□No	□N/A					
Containers Intact?		Yes	□No	□N/A	10.				
Filtered Volume Received for I	Dissolved Tests?	Yes	□No	N/A	11.	Note if sediment is	visible in the diss	solved containers.	
Sample Labels Match COC?	1-	Yes	No	□N/A	12.				
-Includes Date/Time/ID/Ana									
All containers needing acid/ba checked and documented in the		Yes	□No	ŊN/A	See	pH log for results a	and additional pr	reservation documen	itation
Headspace in Methyl Mercury	Container	Yes	□No	₽N/A	13.				
Headspace in VOA Vials (>6m	m)?	□Yes	□No	□N/A	14.				
Trip Blank Present?		Yes	□No	□N/A	15.				
Trip Blank Custody Seals Prese	nt?	Yes	No	IN/A					
Pace Trip Blank Lot # (if purch:	ased):								
CLIENT NOTIFICATION/RESOL	UTION					Fi	eld Data Requir	ed? Yes No	
	d:				Date/	Гіте:			
	n:								
and the second s									
FECAL WAIVER ON FILE	Y N		TEM	PERATU	JRE W	/AIVER ON FILE	Y N		
Project Manager Review:	VI	es.				Date:	5/18/17		